

(A) Definitions.

- (1) "Available pollutant assimilative capacity" means the water body pollutant assimilative capacity for a substance, as determined in paragraph (A)(26)(a) of this rule, minus the background pollutant load, or the quantity for a substance as calculated in paragraph (A)(26)(b) of this rule.
- (2) "Background pollutant load" means the sum of: the upstream pollutant load of a substance; all tributary loads in the segment; and the pollutant loads from discharges in the segment that discharge the pollutant but are not receiving an allocation or permit limit for that pollutant. All portions of the background pollutant load shall be based upon appropriate methods identified in the total maximum daily load procedures, and shall be determined for all substances that impact the segment receiving the allocation.
- (3) "Best available demonstrated control technology" means a wastewater treatment capable of meeting the effluent limitations in paragraph (A)(3)(a) or (A)(3)(b) of this rule, or a treatment designed as in accordance with the provisions of paragraphs (A)(3)(c) to (A)(3)(f) of this rule.
 - (a) For the discharge of sanitary wastewater from facilities using conventional treatment technologies, the effluent limitations in table 5-1 of this rule.
 - (b) For the discharge of sanitary wastewater from alternative treatment technologies such as lagoon systems, land application and controlled discharge systems, constructed wetland systems or combined sewer overflow control systems effluent limitations shall be developed on a case-by-case basis.
 - (c) For industrial direct discharges subject to federal effluent guidelines, the facility shall be designed to meet the most stringent of the new source performance standards, best conventional pollutant control technology, best available technology economically achievable and best practicable control technology currently available for the appropriate categorical guidelines of 40

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- (d) For categorical industrial indirect dischargers, the facility shall be designed to meet categorical pretreatment standards for existing sources or categorical pretreatment standards for new sources as contained in Chapter 3745-3 of the Administrative Code.
 - (e) For non-categorical industrial direct or indirect discharges, effluent limitations will be developed based upon best engineering/professional judgment.
 - (f) For wastewater discharges resulting from clean-up of response action sites contaminated with volatile organic compounds, the facility shall include air-stripping, carbon columns, both, or equivalent treatment capable of achieving final thirty-day average effluent limits of five micrograms per liter or less for each individually regulated volatile organic compound.
- (4) "Control document" means any authorization issued by a state or federal agency to any source of pollutants to waters under its jurisdiction that specifies conditions under which the source is allowed to operate.
 - (5) "Declining fish species" mean those native species that have declined in distribution across Ohio based on collection records since 1978 compared to historical distributions of fish species documented in "Fishes of Ohio" (Trautman, 1981). No later than ninety days after the effective date of this rule, the director, in consultation with the director of the department of natural resources, shall establish and make available through public notice a registry of declining fish species. In the event that improved water quality results in the decline of any pollutant tolerant native fish species the director may elect not to include such species on the registry if the ecological risks appear minimal. The registry shall be revised periodically if public comments or other circumstances justify.
 - (6) "Existing discharge" means a direct discharge of pollutants to waters of the state in existence at the time of the applicant's request to transfer pollutant loading.
 - (7) "Existing effluent quality based permit limitations"

mean discharge limits for specific pollutants specified in national pollutant discharge elimination system permits issued prior to July 1, 1993 that were derived from an analysis of effluent quality reported in monthly operating report data, including any negotiated limits that were based in part upon an analysis of effluent quality reported in monthly operating report data.

- (8) "Existing source" means any treatment works that were built and operational under the terms of a national pollutant discharge elimination system permit prior to July 1, 1993, but does not include expansions or upgrades of existing treatment works authorized pursuant to rule 3745-31 of the Administrative Code after July 1, 1993.
- (9) "High quality waters" mean all surface waters of the state except limited quality waters. Pursuant to division (A)(2) of section 6111.12 of the Revised Code, five categories of high quality waters are hereby recognized and described in this paragraph. Designations of specific water bodies shall follow the procedures in paragraph (E) of this rule.
 - (a) "General high quality waters" are wetlands categorized as category 2 or 3 in accordance with rule 3745-1-54 of the Administrative Code and other surface waters that are not specifically designated limited quality waters, superior high quality waters, outstanding national resource waters, outstanding high quality waters, or state resource waters.
 - (b) "Superior high quality waters" are surface waters that possess exceptional ecological values, exceptional recreational values or both, and that have been so designated pursuant to paragraph (E) of this rule. Except as provided below, exceptional ecological values shall be assessed based upon a combination of the presence of threatened or endangered species and a high level of biological integrity. The following factors shall be considered in determining exceptional ecological value: providing habitat for Ohio or federal endangered species; providing habitat for Ohio threatened species; harboring stable populations of a declining fish species that coincide with the presence of suitable habitat for

that species, or that coincide with an essential migration path between areas of suitable habitat for that species; and displaying a level of biological integrity equivalent to the exceptional warmwater habitat index of biotic integrity and/or invertebrate community index criteria values listed in rule 3745-1-07 of the Administrative Code.

Water bodies that exhibit a pattern of biological integrity equivalent to index of biotic integrity and, where applicable, invertebrate community index scores of fifty-six or greater at most sites are characteristic of a near-pristine aquatic habitat. Such waters, as well as other ecologically unique water bodies that have essentially undisturbed native faunas, but for which the biological criteria in rule 3745-1-07 of the Administrative Code do not apply, may be considered as possessing exceptional ecological values without the presence of threatened or endangered species.

Exceptional recreational values may include providing outstanding or unique opportunities for recreational boating, fishing or other personal enjoyment.

- (c) "State resource waters" are surface waters so designated in rules 3745-1-08 to 3745-1-30 of the Administrative Code and all publicly owned lakes and reservoirs.
- (d) "Outstanding national resource waters" and "outstanding high quality waters" are surface waters that have a national ecological or recreational significance, and that have been so designated pursuant to paragraph (E) of this rule. National ecological significance may include providing habitat for populations of federal endangered or threatened species or displaying some unique combination of biological characteristics in addition to those factors listed in paragraph (A)(9)(b) of this rule. National recreational significance may include designation in the national wild and scenic river system.

- (10) "Land application and controlled discharge system"

means an innovative technology for the treatment of sewage that balances land application of treated wastewater with controlled discharges of wastewater under conditions that minimize stress on the aquatic environment. The system shall be designed to allow a maximum increase of 0.1 milligram per liter of ammonia-nitrogen in the receiving water body calculated according to methods contained in the total maximum daily load procedures.

- (11) "Limited quality waters" mean wetlands categorized as category 1 in accordance with rule 3745-1-54 of the Administrative Code and other surface waters of the state specifically designated in rules 3745-1-08 to 3745-1-30 of the Administrative Code as limited resource water, nuisance prevention, limited warmwater habitat, or modified warmwater habitat.
- (12) "Minimal degradation alternative" means an alternative, other than the applicant's preferred alternative, including pollution prevention alternatives, that would result in a lesser lowering of water quality.
- (13) "Mitigative technique alternative" means an alternative, other than the applicant's preferred alternative, or other on-site or off-site control measures designed to offset all or part of the lowering of water quality within the same watershed.
- (14) "Modification" has the same meaning as defined in paragraph (J) of rule 3745-31-01 of the Administrative Code.
- (15) "Net increase" means the amount by which the sum of the following exceeds zero:
 - (a) The increase in a mass discharge limit attributable to the activity subject to this rule; and
 - (b) All other contemporaneous increases or decreases attributable to other pollutant source(s) affecting the surface water segment(s) under consideration and which are stipulated as a condition of the applicant's permit and which shall occur during the term of the applicant's permit.
- (16) "New source" means any treatment works or disposal

system other than an existing source.

- (17) "Non-degradation alternative" means an alternative, other than the applicant's preferred alternative, including pollution prevention alternatives, that would result in the elimination of the need to lower water quality.
- (18) "Permit modification" means an application filed by the permit holder pursuant to paragraph (D) of rule 3745-33-04 of the Administrative Code.
- (19) "Permitted discharge flow" means the discharge flow specified in the national pollutant discharge elimination system permit, or permit to install application if not specified in a national pollutant discharge elimination system permit, and shall be representative of the typical wastewater flow to be discharged by a facility when the wastewater facility is operating at full capacity, and considering, where applicable, discharge flows during wet weather events. Applicable wet weather flows include, but are not limited to, the increased flows at publicly owned treatment works authorized pursuant to national or state combined sewer overflow strategies and the routing of pre-existing industrial site stormwater runoff to an existing wastewater treatment facility.
- (20) "Pollution prevention alternative" means the use of source reduction techniques in order to reduce risk to public health, safety, welfare and the environment and, as a second preference, the use of environmentally sound recycling to achieve these same goals. Pollution prevention avoids cross-media transfers of waste and/or pollutants and is multi-media in scope; it addresses all types of waste and environmental releases to the air, water and land.
- (21) "Regulated pollutant" means any parameter for which water quality criteria have been adopted in, or developed pursuant to, Chapter 3745-1 of the Administrative Code with the exception of biological criteria, and any other parameter limited in a national pollutant discharge elimination system permit as a result of new source performance standards, best conventional pollutant control technology, best available technology economically achievable or best practicable control technology currently available for the appropriate categorical guidelines of 40 C.F.R.

- (22) "Remaining available pollutant assimilative capacity" means the available pollutant assimilative capacity for a substance minus the load already allocated to existing national pollutant discharge elimination system permits for dischargers in the water body segment receiving the allocation. This term is not used in the application of antidegradation for lake Erie.
- (23) "Threatened species" means an indigenous species whose survival in Ohio is not in immediate jeopardy, but to which a threat exists. Continued or increased stress will result in its becoming endangered. No later than ninety days after the effective date of this rule, the director, in consultation with the director of the department of natural resources, shall establish and make available through public notice a registry of threatened aquatic species. The registry shall be revised periodically if public comments or other circumstances justify.
- (24) "Total maximum daily load procedures" mean the procedures, policies and guidelines for calculating wasteload allocations used by the director as of July 1, 1993, or subsequent revisions to those procedures established in rules adopted in accordance with Chapter 119. of the Revised Code.
- (25) "Trace contaminants of primarily domestic origin" means any non-oxygen demanding substance potentially found in sewage, including, but not limited to, copper, cadmium, lead, chromium and zinc, provided that such substances are not discharged to the disposal system from a new or expanded industrial water pollution control facility.
- (26) "Water body pollutant assimilative capacity" means the total maximum allowable load of a substance for a specific water body segment and is calculated as:
- (a) For a stream, the water quality criteria for a substance multiplied by the total applicable flow at the end of the segment being studied. The applicable flow is determined using the total maximum daily load procedures; and
 - (b) For lake Erie, a value equal to the permitted discharge flow times Y, where Y equals eleven times the water quality criteria for a substance minus ten times the background concentration for

the substance.

Water body pollutant assimilative capacity for lake Erie can also be determined by any alternative method which the director determines to be appropriate and consistent with the total maximum daily load procedures.

(B) Applicability; responsibilities of the applicant.

Except as provided in paragraphs(D)and(F)of this rule, projects or activities covered under paragraph (B)(1) of this rule shall be subject to an antidegradation review described in paragraph (C) of this rule.

(1) This rule shall apply to the activities, permits, certifications and other circumstances described in this paragraph.

(a) For existing sources, any re-issuance or modification of a national pollutant discharge elimination system permit that, if approved, would result in a net increase in the discharge of any regulated pollutant as determined using the following criteria:

(i) Net increase of the average thirty-day mass limit specified in the national pollutant discharge elimination system permit, if an average mass limit is specified;

(ii) If no average mass limit is specified, then a net increase above the product of:

(a) The average concentration limit specified in the national pollutant discharge elimination system permit, if an average concentration limit is specified, and

(b) The permitted discharge flow or the flow used in the wasteload allocation;

(iii) If neither an average mass limit nor an average concentration limit are specified, then a net increase above the product of:

(a) An average concentration value derived

from the maximum concentration limit specified in the national pollutant discharge elimination system permit, if a maximum concentration limit is specified, using derivation methods established in the total maximum daily load procedures, and

- (b) The permitted discharge flow or the flow used in the wasteload allocation;
- (iv) If the national pollutant discharge elimination system permit specifies no limit for the pollutant, then the imposition of any effluent limit if the pollutant is present, or present in greater amounts, because of any of the following conditions:
 - (a) A physical change in, or change in the operation of, a publicly owned treatment works; or
 - (b) The addition of a significant industrial user, as defined in rule 3745-3-01 of the Administrative Code; or
 - (c) A physical change in, or change in the operation of, industrial processes and/or wastewater treatment at a significant industrial user as defined in rule 3745-3-01 of the Administrative Code; or
 - (d) A physical change in, or change in the operation of, industrial processes and/or wastewater treatment at a permitted facility other than a publicly owned treatment works.
- (b) For new sources not already in existence as of October 1, 1996, any permit to install or national pollutant discharge elimination system permit application that, if approved, would result in a net increase in the discharge of any regulated pollutant.

- (c) For new sources already in existence as of October 1, 1996, if the source is discharging to waters of the state under the terms of a national pollutant discharge elimination system permit issued on or after July 1, 1993, or if the new source is comprised entirely of stormwater runoff from an existing site or facility whether under permit or not, the criteria for determining this rule's applicability shall be those specified in paragraph (B)(1)(a) of this rule. Except as provided above for stormwater runoff, if the new source is already in existence and discharging to waters of the state without a national pollutant discharge elimination system permit, the net increase shall be determined based upon the discharge of any regulated pollutant above the product of:
 - (i) The ninety-fifth percentile of the actual concentrations calculated according to procedures established in the total maximum daily load procedures, and
 - (ii) The permitted discharge flow or the flow used in the wasteload allocation.
- (d) Any section 401 water quality certification application pursuant to Chapter 3745-32 of the Administrative Code.
- (e) Any nonpoint source of pollution that results in a net increase in the release of any regulated pollutant, provided the director has separate authority to regulate the activity.
- (f) Any permit to install application reviewed pursuant to Chapter 6111. of the Revised Code that involves the placement of fill or any portion of a sewerage system in or near a stream bed, if the director determines that stream habitat alterations caused by the activity would lower the water quality as measured by the applicable biological criteria identified in rule 3745-1-07 of the Administrative Code by more than the following amount(s): index of biotic integrity, four units; or, invertebrate community index, four units; or, modified index of well-being, 0.5 units.

- (g) The transfer of all or a portion of the wastewater discharged by a treatment works to a different receiving water body, or to a different treatment works discharging to a different water body, unless the transfer is to a treatment works with capacity to accept the transferred wastewater within the terms of its existing national pollutant discharge elimination system permit, or to an existing outfall at a facility which is subject to best available treatment economically achievable or new source performance standards established under 40 C.F.R. part 420 and for which alternative limitations derived under 40 C.F.R. part 420.03 are being sought.
- (2) Except as provided in paragraphs (D) and (F) of this rule, the applicant covered by paragraph (B)(1) of this rule must submit documentation of the following.
- (a) Identification of the substances to be discharged, including the amount of regulated pollutants to be discharged in terms of mass and concentration, and, if paragraph (B)(1)(d) of this rule applies, the amount of dredged and fill material to be discharged.
 - (b) A description of any construction work, fill or other structures to occur or be placed in or near the stream bed.
 - (c) A description of the applicant's preferred alternative for design and operation of the activity.
 - (d) Descriptions and analyses of non-degradation alternatives, minimal degradation alternatives and mitigative technique alternatives for the design and operation of the activity that the applicant has considered.
 - (e) An estimate of the important social, economic and environmental benefits to be realized through the project or activity if the water quality is lowered, including, as appropriate, the number and types of jobs created and the tax revenues generated.
 - (f) An estimate of important social, economic and environmental benefits to be lost if water quality

is lowered, such as lost or lowered recreational opportunities.

- (g) To the extent that such information is known to those in the local community or is otherwise public, a listing and description of all government or privately sponsored conservation projects that have specifically targeted improved water quality and/or enhanced recreational opportunities on the water body(ies) affected by the activity.

(C) Antidegradation review requirements.

(1) Protection of water body uses.

Existing instream water uses, as defined in rule 3745-1-07 of the Administrative Code, shall be maintained and protected. There may be no degradation of water quality that results in a violation of the applicable water quality criteria for the designated uses, or the elimination or substantial impairment of existing instream water uses. The director shall, pursuant to paragraph (A)(6) of rule 3745-1-07 of the Administrative Code, prohibit increased concentrations of specific regulated pollutants that are incompatible with the attainment or restoration of the designated use. Existing wetland uses, as defined in rule 3745-1-53 of the Administrative Code, shall be maintained and protected in accordance with rules 3745-1-50 to 3745-1-54 of the Administrative Code.

(2) Required treatment technology, nonpoint source controls.

Except as provided in paragraph (D)(2) of this rule, any net increase in the discharge of a specific regulated pollutant resulting from a modification or new source shall, as a minimum, be controlled through best available demonstrated control technology relative to the specific regulated pollutant. More stringent treatment may be required pursuant to paragraph (C)(8) of this rule, or if needed to meet water quality standards. Feasible management or regulatory programs pursuant to sections 208, 303 and 319 of the Act, 33 U.S.C. Sections 1288, 1313 and 1329, shall be applied to nonpoint sources.

(3) Public involvement.

The director shall provide for public participation and intergovernmental coordination prior to taking action on all activities covered by paragraph (B)(1) of this rule using the provisions of this paragraph.

- (a) The director shall publish a public notice within thirty days regarding receipt of any permit to install application, national pollutant discharge elimination system permit application or section 401 water quality certification application covered by paragraph (B)(1) of this rule. The purpose of such notice shall be to inform other potentially affected persons, to allow for inspection and review of the application, to indicate whether any of the exclusions or waivers described in paragraph (D) of this rule apply, to instruct people to contact the director within thirty days, if they want to be on the interested parties mailing list for that application, to advertise the date, time and place of any public hearing required under paragraph (C)(3)(c) of this rule, and, on general high quality waters and limited quality waters, to determine whether there is interest in having a public hearing.

All notices of hearings required by paragraph (C)(3)(c) of this rule shall be published once in a newspaper having general circulation in the county where the source, activity or facility is located. The notice shall be published at least forty-five days before the hearing. Notices shall also be sent by first class mail to all persons on the mailing list created pursuant to paragraph (C)(3)(b) of this rule.

- (b) The director shall develop and maintain a list of persons and organizations who have expressed an interest in or may, by the nature of their purposes, activities or members, be affected by or have an interest in antidegradation reviews.
- (c) Within ninety days of receipt of the application, the director shall hold a public hearing for any permit to install application, or national pollutant discharge elimination system permit application or section 401 water quality certification application for a category 3 wetland covered by paragraph (B)(1) of this rule whenever a water body designated outstanding national

resource water, outstanding high quality water, state resource water or superior high quality water is affected. This public hearing shall be for the purpose of evaluating issues related to lower water quality and shall be prior to and separate from a public hearing on the proposed or draft action on the application.

- (d) For general high quality waters other than category 3 wetlands and for limited quality waters, the director shall hold a public hearing for any permit to install application, national pollutant discharge elimination system permit application or section 401 water quality certification application covered by paragraph (B)(1) of this rule whenever the director determines there is significant public interest. A public notice advertising the date, time and place of the public hearing shall be published once in a newspaper having general circulation in the county where the source, activity or facility is located. The notice shall be published at least forty-five days before the hearing, unless the director determines there are no complex or controversial matters to be addressed in which case the notice requirement is reduced to no less than thirty days. Notices shall also be sent by first class mail to all persons on the mailing lists created pursuant to paragraphs (C)(3)(a) and (C)(3)(b) of this rule.

The director shall hold public hearings relative to issues of lower water quality either as a separate public hearing preceding the proposed or draft action, or as a concurrent hearing at the time of the draft or proposed action, unless the application is covered by paragraph (D) of this rule. If the application is covered by paragraph (D) of this rule and the application is not otherwise covered by paragraph (C)(3)(c) of this rule, the director shall hold concurrent public hearings at the time of the draft or proposed action.

- (e) A public notice of the director's proposed or draft action regarding the activity and its potential to lower water quality shall be published following the procedures in Chapter 3745-47 of the Administrative Code. The director

shall provide notification by first class mail to all interested parties identified through the procedures in paragraph (C)(3) of this rule. Additional procedures are described in paragraph (C)(8) of this rule.

- (f) The director shall notify the Ohio department of natural resources, the United States fish and wildlife service, the United States environmental protection agency and any affected local areawide planning agencies of all proposed activities that may lower water quality. In addition, for activities covered under paragraph (B)(1)(a), (B)(1)(b), (B)(1)(c) or (B)(1)(g) of this rule, the director shall notify the Ohio department of development and any affected local governmental units. The director or the other agencies may initiate additional intergovernmental coordination.

(4) Outstanding national resource waters.

The director shall impose the following requirements on all activities covered by paragraph (B)(1) of this rule that discharge to outstanding national resource waters, or that discharge upstream of outstanding national resource waters.

- (a) Present ambient water quality in outstanding national resource waters shall not be degraded for any substance.
- (b) The director may re-issue permits for any source discharging to an outstanding national resource water if the source had a national pollutant discharge elimination system permit at the time the water body was designated an outstanding national resource water as described in paragraph (E) of this rule, provided there is no increase in the permitted discharge concentrations or loads.
- (c) New sources may not discharge directly to outstanding national resource waters, and may not discharge at points located upstream from outstanding national resource waters unless it can be demonstrated by the applicant that the chemical and biological quality of the outstanding national resource water will not be adversely affected.

- (d) Notwithstanding the provisions stated in paragraph (C)(4)(a) and (C)(4)(e) of this rule, activities that result in short-term changes in water quality in outstanding national resource waters may be allowed if the director determines there will be no long-term detrimental impact. Activities resulting in short-term impacts on outstanding national resource waters will be subject to a review of non-degradation alternatives, minimal degradation alternatives, mitigative technique alternatives, economic and social benefits, public participation and intergovernmental coordination.
 - (e) Notwithstanding the provisions stated in paragraphs (C)(4)(a) and (C)(4)(d) of this rule discharges of dredged and fill material to outstanding national resource waters that are wetlands, and are owned and managed solely for natural area preservation, public recreation, education or scientific purposes, may be authorized provided the discharges and associated activities result in only a short-term disturbance to water quality and will not adversely affect the ecological quality of the wetland or other surface waters. Authorized discharges and associated activities include boardwalk construction, repair and maintenance of dikes and other hydrological controls, and removal of non-native and invasive plant species. For these discharges and associated activities the director may waive the need for the review outlined in paragraph(C)(4)(d) of this rule.
- (5) Outstanding high quality waters.

The director shall impose the following requirements on all activities covered by paragraph (B)(1) of this rule that discharge to outstanding high quality waters, or that discharge upstream of outstanding high quality waters and measurably affect the water quality of an outstanding high quality water.

- (a) The director may re-issue permits for existing sources discharging to outstanding high quality waters, but there may be no net increase in allowable mass loading. There may be no increase in permitted discharge concentration of regulated pollutants unless the increase is the result of water conservation practices at the facility.

This increase in concentration may not exceed a five per cent change in the ambient water quality of the receiving water as projected to occur under appropriate environmental design conditions.

- (b) New sources and modifications may not discharge directly to outstanding high quality waters unless the discharge is equivalent to the existing background water quality at the proposed point of discharge.
- (c) New sources and modifications may not discharge at points located upstream from outstanding high quality waters unless it can be demonstrated by the applicant that the chemical and biological quality of the outstanding high quality water will not be measurably affected. Measurably affected in this context shall mean a change which can be detected with reasonable scientific certainty using the analytical methods cited in rule 3745-1-03 of the Administrative Code, provided any proposed discharge complies with all applicable water quality standards and will not raise pollutant loading rates to harmful levels.
- (d) Activities that result in short-term changes in water quality in outstanding high quality waters may be allowed if the director determines there will be no long-term detrimental impact. Activities resulting in short-term impacts on outstanding high quality waters will be subject to a review of non-degradation alternatives, minimal degradation alternatives, mitigative technique alternatives, economic and social benefits, public participation and intergovernmental coordination.

(6) Other waters.

For waters other than outstanding national resource waters, outstanding high quality waters and limited quality waters, the director shall impose the following requirements on all activities covered by paragraph (B)(1) of this rule except that for section 401 water quality certifications for high quality waters that are wetlands, the director shall impose the requirements specified in rules 3745-1-50 to 3745-1-54 of the Administrative Code in lieu of paragraphs (C)(6) and (C)(8) of this rule. In addition, the director may

apply the items in paragraphs (C)(6)(a) to (C)(6)(f) and (C)(6)(k) to (C)(6)(m) of this rule, may consider cumulative impacts as defined in paragraph (I) of rule 3745-1-50 of the Administrative Code, and shall consider whether the wetland is scarce regionally or statewide and the feasibility of replacing that wetland type, in making a decision whether to allow the lowering of water quality.

The director may approve activities that lower water quality only if there has been an examination of non-degradation, minimal degradation and mitigative technique alternatives, a review of the social and economic issues related to the activity, a public participation process and appropriate intergovernmental coordination, and the director determines that the lower water quality is necessary to accommodate important social or economic development in the area in which the water body is located.

The director may require the applicant to implement a non-degradation alternative, a minimal degradation alternative or a mitigative technique alternative to offset all or part of the proposed lowering of water quality, if the director determines that the alternative is technically feasible and economically justifiable. Any lowering of water quality shall not exceed the limitations specified in paragraph (C)(7) of this rule.

When making determinations regarding proposed activities that lower water quality the director shall consider the following:

- (a) The magnitude of the proposed lowering of water quality;
- (b) The anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, including threatened and endangered species, important commercial or recreational sport fish species, other individual species and the overall aquatic community structure and function;
- (c) The anticipated impact of the proposed lowering of water quality on human health and the overall quality and value of the water resource;
- (d) The degree to which water quality may be lowered

in waters located within national, state or local parks, preserves or wildlife areas or waters designated outstanding high quality waters, outstanding national resource waters, superior high quality waters or state resource waters;

- (e) The effects of lower water quality on the economic value of the water body for recreation, tourism and other commercial activities, aesthetics, or other use and enjoyment by humans;
- (f) The extent to which the resources or characteristics adversely impacted by the lowered water quality are unique or rare within the locality or state;
- (g) The cost of the water pollution controls associated with the proposed activity;
- (h) The cost effectiveness and technical feasibility of the non-degradation alternatives, minimal degradation alternatives or mitigative technique alternatives and the effluent reduction benefits and water quality benefits associated with such alternatives;
- (i) The availability, cost effectiveness, and technical feasibility of central or regional sewage collection and treatment facilities, including long-range plans outlined in state or local water quality management planning documents and applicable facility planning documents;
- (j) The availability, reliability and cost effectiveness of any non-degradation alternative, minimal degradation alternative or mitigative technique alternative;
- (k) The reliability of the preferred alternative including, but not limited to, the possibility of recurring operational and maintenance difficulties that would lead to increased degradation;
- (l) The condition of the local economy, the number and types of new direct and indirect jobs to be created, state and local tax revenue to be generated, and other economic and social factors as the director deems appropriate; and

- (m) Any other information regarding the proposed activities and the affected water body that the director deems appropriate.
- (7) Set asides to limit lower water quality.

In addition to the other provisions of paragraph (C) of this rule, the director shall not allow water quality to be lowered by more than as specified in this paragraph when acting on applications covered by paragraph (B)(1) of this rule.

- (a) Except as provided in paragraphs (C)(7)(b) and (D)(1)(b)(iv) of this rule, present ambient water quality in state resource waters will not be degraded for all substances determined to be toxic or to interfere with any designated use as determined by the director.
- (b) If the other provisions of paragraph (C) of this rule are followed, the director may allow a lowering of water quality in state resource waters if it is the result of the discharge of oxygen demanding wastewater and other trace contaminants of primarily domestic origin, and the effluent limits are equivalent to or better than those in table 5-1 of this rule. At the time the director acts on the application, he shall reserve a portion of the remaining available pollutant assimilative capacity as it relates to ammonia-nitrogen, dissolved oxygen and biochemical oxygen demand. The reserved portion shall be determined on a case-by-case basis and shall be specified in the public notice, fact sheet and permit associated with the application.
- (c) For lake Erie, new and existing sources shall be limited to the water body pollutant assimilative capacity as defined in paragraph (A)(26)(b) of this rule.
- (d) For superior high quality waters other than lake Erie, the director shall reserve a portion of the remaining available pollutant assimilative capacity for all regulated pollutants for which water quality criteria have been established in Chapter 3745-1 of the Administrative Code. The reserved portion shall be within the range of ninety to thirty per cent of the remaining

available pollutant assimilative capacity, shall apply to all regulated pollutants and shall not be allocated to any source. The director shall determine the appropriate reserved portion at the time the water body is designated as a superior high quality water under paragraph (E) of this rule. The requirements of this paragraph shall not apply to any water body that is not listed in rules 3745-1-08 to 3745-1-30 of the Administrative Code or to any water body designated as a superior high quality water solely because of its exceptional recreational value.

- (e) For general high quality waters and limited quality waters, water quality may not be lower than the applicable water quality criteria for the water body.

(8) Procedures.

- (a) The director shall assess each proposed activity covered by paragraph (B)(1) or (F) of this rule on a case-by-case basis. For each proposed activity not otherwise excluded pursuant to paragraph (D) of this rule, the director shall weigh the applicant's information and all comments presented during the public review period, including intergovernmental comments, and make a determination to:
 - (i) Allow the applicant's preferred alternative and the lower water quality as proposed;
 - (ii) Deny the applicant's preferred alternative as proposed;
 - (iii) Allow the applicant's non-degradation alternative(s) in lieu of the applicant's preferred alternative that, if implemented by the applicant, would result in no lowering of water quality; or,
 - (iv) Allow the applicant's minimal degradation alternative(s) or acceptable mitigative technique alternative(s) in lieu of the applicant's preferred alternative that, if implemented by the applicant, would result in a lesser lowering of water quality.

- (b) Any action of the director issuing a permit to install or a national pollutant discharge elimination system permit covered under paragraph (B)(1) or (F) of this rule shall be preceded by a draft action and shall be issued in accordance with Chapter 3745-47 of the Administrative Code.
- (c) Any action of the director denying a permit to install or a national pollutant discharge elimination system permit covered under paragraph (B)(1) or (F) of this rule shall be preceded by a proposed action and shall be issued in accordance with Chapter 3745-47 of the Administrative Code.
- (d) Any action of the director on a section 401 water quality certification covered under paragraph (B)(1) or (F) of this rule shall be taken in accordance with Chapters 3745-32 and 3745-47 of the Administrative Code.

(D) Exclusions and waivers.

The exclusions and waivers described in paragraphs (D)(1)(a), (D)(1)(b), (D)(1)(d), (D)(1)(e) and (D)(3) of this rule do not apply to bioaccumulative chemicals of concern within the lake Erie basin.

- (1) The following situations are excluded from the submittal and review requirements listed in paragraphs (B)(2)(c) to (B)(2)(g), (C)(6) and (C)(8) of this rule.
 - (a) Any source discharging to limited quality waters.
 - (b) Any de minimis net increase determined using the following criteria:
 - (i) For general high quality waters, any net increase in the discharge of a regulated pollutant that does not exceed ten per cent of the wasteload allocation to maintain water quality standards calculated using total maximum daily load procedures, provided the proposed lowering of water quality does not exceed eighty per cent of the wasteload allocation to maintain water quality standards calculated using total maximum daily load procedures.
 - (ii) For superior high quality waters, other

than lake Erie, any net increase in the discharge of a regulated pollutant that results in less than a five per cent change in the ambient water quality concentration of the receiving water as projected to occur using total maximum daily load procedures, provided the proposed lowering of water quality does not exceed the portion of the remaining available assimilative capacity specified by the director pursuant to paragraphs (C)(7)(d) and (E) of this rule.

- (iii) For lake Erie any net increase in the discharge of a regulated pollutant that does not exceed ten per cent of the water body pollutant assimilative capacity.
 - (iv) For state resource waters, any net increase in the discharge of a regulated pollutant that results in less than a five per cent change in the ambient water quality concentration of the receiving water as projected to occur under total maximum daily load procedures, provided the application of this exclusion is limited to a single exclusion per each five-mile long segment of stream designated as state resource water, or a single exclusion per lake, reservoir or wetland designated as state resource water.
- (c) Combined sewer overflow elimination or reduction projects affecting one or more water bodies where there will be a net decrease in the overall pollutant loadings discharged to surface waters of the state.
 - (d) Any disposal system built and operated exclusively for the treatment of volatile organic compounds at response action clean-up sites and which includes air-stripping, carbon columns, both, or equivalent treatment, and which achieves final effluent limits of five micrograms per liter or less as a thirty-day average for each individually regulated volatile organic compound.
 - (e) Any disposal system built and operated as a land application and controlled system as defined in

paragraph (A)(10) of this rule.

- (f) Any permit to install application for a project designed exclusively to restore, maintain or ensure design capacity and associated pollutant discharge levels already authorized in an effective national pollutant discharge elimination system permit.
 - (g) Any net increase in the discharge of a regulated pollutant resulting from a change in fuel used by the discharger, provided the discharger was capable of accommodating the new fuel on the effective date of this rule.
 - (h) Any application approved pursuant to the authorization for storm water discharges associated with construction activity under the national pollutant discharge elimination system permit numbers OHR100000, OHC00001 or any subsequent reissuance of these same permits.
 - (i) Any application or group application approved pursuant to the general permit authorization to discharge storm water associated with industrial activity under the national pollutant discharge elimination system permit numbers OHR000002, OHG000001 or any subsequent reissuance of these same permits.
 - (j) Any application approved pursuant to the general permit authorization to discharge wastewater from coal mining activities under the national pollutant discharge elimination system permit number OHM000001 or any subsequent reissuance of this same permit.
 - (k) Any imposition of mercury effluent limitations in an NPDES permit for an existing source or new source already in existence as of October 1, 1996 where the mercury limitations are based on a variance pursuant to paragraph (D)(10) of rule 3745-33-07 of the Administrative Code.
- (2) The director may waive the requirement to install best available demonstrated control technology for new sources discharging sanitary wastewater if:
- (a) The modification, new source or national pollutant

discharge elimination system application is for a project designed exclusively to restore, maintain or ensure design capacity and associated pollutant discharge levels already authorized in an effective national pollutant discharge elimination system permit; or

- (b) The modification, new source or national pollutant discharge elimination system application is the direct and sole result of a proposed transfer of pollutant loading from an existing discharge, and the director has determined that the transfer will result in overall environmental improvement. The director's determination on this matter shall be based upon the antidegradation review process specified in paragraph (C) of this rule, unless otherwise excluded from such review pursuant to paragraph (D) of this rule.
- (3) The director may waive the submittal and review requirements listed in paragraphs (B)(2)(e) to (B)(2)(g), (C)(6) and (C)(8) of this rule if it is determined that:
 - (a) The proposed net increase in the discharge of a regulated pollutant does not result in an increase in the ambient water quality concentration of the receiving water after mixing as projected to occur under the total maximum daily load procedures;
 - (b) Any proposed net increase in the discharge of nutrients (such as, but not limited to, phosphorus and nitrogen) or toxic substances complies with all applicable water quality standards and will not threaten environmentally sensitive areas such as downstream lakes, reservoirs, wetlands, exceptional warmwater habitats, coldwater habitats, outstanding national resource waters, outstanding high quality waters, superior high quality waters or state resource waters; and
 - (c) The requirements of paragraph (B)(2)(d) of this rule have been met and the director determines that none of the non-degradation alternatives, minimal degradation alternatives or mitigative technique alternatives for the design and operation of the activity are technically feasible and economically justifiable.

- (4) If the conditions set forth in this paragraph are met, the director may waive the requirements of paragraphs (C)(3)(a), (C)(3)(c) and (C)(3)(d) of this rule for activities covered by paragraph (B)(1) of this rule. The applicant must have previously submitted a general plan for wastewater disposal which included an analysis of non-degradation, minimum degradation and mitigative technique alternatives. The general plan must have been the subject of a public meeting held by the Ohio environmental protection agency after July 1, 1993 and before the effective date of this rule. The director's public notice regarding the public meeting must have followed the procedures in Chapter 3745-47 of the Administrative Code and contained a reference to the potential for the lowering of water quality.
- (5) Nothing in this rule shall prohibit the director from approving activities that lower water quality on a temporary basis whenever the director determines that an emergency exists requiring immediate action to protect public health and welfare. The director shall issue any such approval in accordance with division (C) of section 6111.06 of the Revised Code and rule 3745-47-29 of the Administrative Code.
- (6) The director may waive the submittal and review requirements listed in paragraphs (B)(2)(e) to (B)(2)(g), (C)(6) and (C)(8) of this rule if the applicant is seeking a revised water quality based effluent limit based upon the results of either a site specific study of the water quality criteria or a change in the water quality criteria found in Chapter 3745-1 of the Administrative Code and the applicant demonstrates that the facility has not complied with the existing water quality based permit limit. The following conditions must be met for this waiver to apply:
 - (a) Any proposed net increase in the discharge of regulated pollutants complies with all applicable water quality standards and will not threaten environmentally sensitive areas such as downstream lakes, reservoirs, wetlands, exceptional warmwater habitats, coldwater habitats, outstanding national resource waters, outstanding high quality waters, superior high quality waters or state resource waters; and
 - (b) The requirements of paragraph (B)(2)(d) of this

rule have been met and the director determines that none of the non-degradation alternatives, minimal degradation alternatives or mitigative technique alternatives for the design and operation of the activity are technically feasible and economically justifiable.

(E) Designation of waters.

- (1) As of the effective date of this rule, all surface waters shall be designated as general high quality waters except as follows.
 - (a) Lake Erie is designated as a superior high quality water.
 - (b) Publicly owned lakes and reservoirs are designated as state resource waters.
 - (c) All surface waters specifically designated as state resource waters in rules 3745-1-08 to 3745-1-30 of the Administrative Code shall retain the state resource water designation until such time as the water bodies are considered under paragraph (E)(2) or (E)(3) of this rule.
 - (d) All surface waters of the state meeting the definition of limited quality waters are so designated, unless the water body is the source of drinking water for a public water supply, in which case it shall be considered a general high quality water for the purposes of this rule.
- (2) No later than one year after the effective date of this rule, and at least once every three years thereafter, the director, in consultation with the director of the department of natural resources, shall consider available information on water bodies in Ohio and determine appropriate high quality water designations. Each determination shall consider attributes of exceptional recreational or ecological value, the national significance of the water body, and other existing and planned uses of the water body. If the director identifies any waters not properly designated, he shall public notice his intent to designate them to the appropriate category upon consideration of public comment. For all waters considered for designation as superior high quality waters the director shall also public notice his intent to reserve a portion of the

remaining available pollutant assimilative capacity as specified in paragraph (C)(7)(d) of this rule. The director shall designate outstanding national resource waters, outstanding high quality waters and superior high quality waters, and rescind designations of state resource waters, in rules 3745-1-08 to 3745-1-30 of the Administrative Code by rule in accordance with Chapter 119. of the Revised Code.

- (3) A person adversely affected by the high quality water designation of a water body pursuant to paragraph (E)(1) or (E)(2) of this rule may petition the director to revise that designation. Any such petition shall detail the basis for the petition and contain, at a minimum, new relevant and factual information, or relevant and factual information not previously available to the director at the time of the designation described in paragraph (E)(1) or (E)(2) of this rule. The petition must contain sufficient information, or such additional information as the director may request, to justify a decision by the director to either revise or retain the designation under paragraph (E)(1) or (E)(2) of this rule. Within three months of receiving a petition containing complete and adequate information, or within such longer time as the director and the petitioner may agree, the director shall either approve or propose to deny the petition in accordance with Chapter 119. of the Revised Code. The director shall subsequently make appropriate revisions to the high quality water designation of the water body in rules 3745-1-08 to 3745-1-32 of the Administrative Code by rule in accordance with Chapter 119. of the Revised Code.
- (F) Special provisions for bioaccumulative chemicals of concern in the lake Erie drainage basin.

The following special provisions are applicable to the discharge or release to the environment of any bioaccumulative chemical of concern in the lake Erie drainage basin. Unless otherwise noted, these requirements shall apply in addition to the provisions found in paragraphs (A) to (E) of this rule.

- (1) In lieu of the requirements of paragraph (B)(1) of this rule, any significant lowering of water quality as described in paragraph (F)(2) of this rule shall require the applicant to submit the information required by paragraph (B)(2) of this rule and to

complete the demonstration required by paragraph (F)(3) of this rule. The director shall establish conditions in the control document that meet the requirements of paragraph (F)(4) of this rule.

(2) Significant lowering of water quality.

- (a) A significant lowering of water quality occurs when there is a new or increased loading of any bioaccumulative chemical of concern from any regulated existing or new facility, either point source or nonpoint source for which there is a control document or reviewable action, as a result of any activity including, but not limited to:
 - (i) Construction of a new regulated facility or modification of an existing regulated facility such that a new or modified control document is required;
 - (ii) Modification of an existing regulated facility operating under a current control document such that the production capacity of the facility is increased;
 - (iii) Addition of a new source of untreated or pretreated effluent containing or expected to contain any bioaccumulative chemical of concern to an existing wastewater treatment works, whether public or private;
 - (iv) A request for an increased limit in an applicable control document; and
 - (v) Other deliberate activities that, based on the information available, could be reasonably expected to result in an increased loading of any bioaccumulative chemical of concern to any waters of the Great Lakes system.
- (b) Notwithstanding the above, changes in loadings of any bioaccumulative chemical of concern within the existing capacity and processes that are covered by the existing applicable control document, are not subject to an antidegradation review. These changes include, but are not limited to:
 - (i) Normal operational variability including,

but not limited to, intermittent increased loadings related to wet weather conditions;

- (ii) Changes in intake water pollutants;
- (iii) Increasing the production hours of the facility, (e.g., adding a second shift), provided production hours do not exceed those described in, or used to derive, the existing control document;
- (iv) Increasing the rate of production, provided production rates do not exceed those described in, or used to derive, the existing control document;
- (v) Discharges of quantities of a bioaccumulative chemical of concern in the intake water at a facility proposing a new or increased discharge, provided that the new or increased discharge is not expected to result in a net increase in the total load of the bioaccumulative chemical of concern in the receiving water body;
- (vi) Increasing the sewered area, connection of new sewers and customers, or acceptance of trucked-in wastes such as septage and holding tank wastes by a POTW unless, for a bioaccumulative chemical of concern, there is increased loading due to the collection of wastewater from a significant industrial user and, based on the industry's raw materials and processes, the wastewater is expected to have quantifiable concentrations of the bioaccumulative chemical of concern significantly above levels typically associated with domestic wastewater and non-industrial stormwater;
- (vii) Increased discharge of a bioaccumulative chemical of concern due to implementation of controls on wet weather-related flows, including, but not limited to, combined sewer overflows and industrial stormwater; and
- (viii) Increased discharges of a bioaccumulative chemical of concern resulting from a change

in fuel used by the discharger, provided that the discharger was capable of accommodating the new fuel on the effective date of this rule.

- (c) Also excluded from an antidegradation review are new effluent limits based on improved monitoring data or new water quality criteria or values that are not a result of changes in pollutant loading.
- (d) Also excluded from the antidegradation submittal and review requirements listed in paragraphs (B)(2)(c) to (B)(2)(g), (C)(6) and (C)(8) of this rule is any imposition of mercury effluent limitations in an NPDES permit for an existing source or new source already in existence as of October 1, 1996, where the mercury effluent limitations are based on a variance pursuant to paragraph (D)(10) of rule 3745-33-07 of the Administrative Code.

(3) Antidegradation demonstration.

Any entity seeking to significantly lower water quality for a bioaccumulative chemical of concern, as defined in paragraph (F)(2) of this rule, in a limited quality water or high quality water must, in addition to the requirement in paragraph (B)(2) of this rule, submit an antidegradation demonstration for consideration by the director pursuant to the review requirements of this paragraph and paragraph (C) of this rule. The antidegradation demonstration shall include the following:

- (a) Pollution prevention alternatives analysis.
Identify any cost-effective pollution prevention alternatives and techniques that are available to the entity, that would eliminate or significantly reduce the loadings of bioaccumulative chemical(s) of concern; and
- (b) Alternative or enhanced treatment analysis.
Identify alternative or enhanced treatment techniques that are available to the entity that would eliminate the lowering of water quality and their costs relative to the cost of treatment necessary to achieve applicable effluent limitations.

- (4) For limited quality waters and high quality waters, the director shall ensure that no action resulting in a lowering of water quality occurs unless an antidegradation demonstration has been completed pursuant to paragraphs (B)(2) and (F)(3) of this rule and the information thus provided is determined by the director pursuant paragraph (C) of this rule to adequately support the lowering of water quality.
- (a) The director shall establish conditions in the control document applicable to the regulated facility that prohibit the regulated facility from undertaking any deliberate action, such that there would be an increase in the rate of mass loading of any bioaccumulative chemical of concern, unless an antidegradation demonstration is provided to the director and approved pursuant to paragraph (C) of this rule prior to commencement of the action. Imposition of limits due to improved monitoring data or new water quality criteria or values, or changes in loadings of any bioaccumulative chemical of concern within the existing capacity and processes that are covered by the existing applicable control document, are not subject to an antidegradation review.
- (b) For bioaccumulative chemicals of concern known or believed to be present in a discharge, from a point or nonpoint source, a monitoring requirement shall be included in the control document. The control document shall also include a provision requiring the source to notify the director of any increased loadings that would be subject to the provisions of the paragraph (F)(2) of this rule and which have not received approval from the director under the conditions specified in this rule. Upon notification, the director shall require actions as necessary to reduce or eliminate the increased loading if the increase is subject to the provisions of the paragraph (F)(2) of this rule. Requirements to reduce or eliminate the increased loading imposed by the director pursuant to this paragraph shall apply unless or until the director approves the increased loadings under the provisions specified in this rule.
- (c) Fact sheets prepared pursuant to 40 C.F.R. 124.8 and 124.56 shall reflect any conditions developed under paragraph (F) of this rule and included in a

permit.

Table 5-1. Best available demonstrated control technology for new sources discharging sanitary wastewater.

Parameter	Thirty-day Limit	Seven-day Limit	Maximum/Minimum Limit
CBOD ₅	10 mg/l	15 mg/l	n/a
Total suspended solids	12 mg/l	18 mg/l	n/a
Ammonia (summer) (Winter)	1.0 mg/l 3.0 mg/l	1.5 mg/l 4.5 mg/l	n/a
Dissolved oxygen	n/a	n/a	6.0 mg/l (minimum)
Total residual chlorine	n/a	n/a	0.038 mg/l (maximum)

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Promulgated under: R.C. Section 119.03

Rule authorized by: R.C. Sections 6111.041 and 6111.12

Rule amplifies: R.C. Sections 6111.041 and 6111.12

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